

CLAIMS

1. A pneumatic tire for a two-wheeled motor vehicle, which comprises:

bead cores embedded in a pair of right and left bead portions;

a carcass toroidally extended from one bead portion to the other, the opposite end portions thereof being wound around the respective bead cores and locked in the respective bead portions;

a belt layer disposed radially on the outside of a crown portion of the carcass; and

a tread portion disposed radially on the outside of the belt layer,

wherein the belt layer includes a spiral belt where the direction of cords thereof is substantially a circumferential direction of the tire, and at least one angled belt that is disposed on at least an outer layer of the spiral belt and whose cords have an angle with respect to an equatorial plane of the tire; and

wherein the tread surface portion of the tread of the tire includes, at least in a tread center region, a main groove component having an angle in the range of 0° or more to less than 20° with respect to the circumferential direction.

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2. The pneumatic tire for a two-wheeled motor vehicle according to Claim 1, wherein, in a no-load standard state where the tire is assembled to a standard rim specified in standards and filled with 80% of the highest internal pressure in accordance with the tire standards, the center of the groove width of the main groove component is positioned in the region whose opposite edges are each apart from the tread center portion by substantially 10% of the periphery length between the opposite edges of the tread.

3. The pneumatic tire for a two-wheeled motor vehicle according to Claim 1, wherein, in a no-load standard state where the tire is assembled to a standard rim specified in the standards and filled with 80% of the highest internal pressure in accordance with the tire standards, the total groove length of the main groove component is not less than 50% of the circumferential length of the tread center portion.

4. The pneumatic tire for a two-wheeled motor vehicle according to Claim 1, wherein, in a no-load standard state where the tire is assembled to a standard rim specified in the standards and filled with 80% of the highest internal pressure in accordance with the tire standards, the groove width of the main groove component is in the range of 1.5% to 7.5%, both inclusive, of the periphery length between the opposite edges of the tread.

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5. The pneumatic tire for a two-wheeled motor vehicle according to Claim 1, wherein the cords constituting the spiral belt and the cords constituting the angled belt each have an initial tensile resistance of not less than 50 cN/cord.

6. The pneumatic tire for a two-wheeled motor vehicle according to Claim 1, wherein the code angle of the angled belt is in the range of 80° to 20°, both inclusive, with respect to the equatorial plane of the tire.

7. The pneumatic tire for a two-wheeled motor vehicle according to Claim 1, wherein the total width of the angled belt is in the range of 150% to 70%, both inclusive, of the tread width.

8. A pneumatic tire for a two-wheeled motor vehicle, which comprises:

bead cores embedded in a pair of right and left bead portions;

a carcass toroidally extended from one bead portion to the other, the opposite end portions thereof being wound around the respective bead cores and locked in the respective bead portions;

a belt layer disposed radially on the outside of a crown portion of the carcass; and

a tread portion disposed radially on the outside of the belt layer,

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wherein the belt layer comprises a spiral belt where the direction of cords thereof is substantially a circumferential direction of the tire, and/or an angled belt whose cords have an angle with respect to an equatorial plane of the tire; and

wherein the tread surface portion of the tread includes a tilting main groove A that extends from a tread center region to shoulder regions in the direction from upstream to downstream, at an angle on the acute angle side, in the range of 45° or more to less than 75° with respect to the circumferential direction; a tilting main groove B that extends from downstream to upstream, at an angle on the acute angle side, in the same range with respect to the circumferential direction; and a main groove component C having an angle in the range of 0° or more to less than 20° with respect to the circumferential direction, in the tread center region.

9. The pneumatic tire for a two-wheeled motor vehicle according to Claim 8, wherein, in a no-load standard state where the tire is assembled to a standard rim specified in standards and filled with 80% of the highest internal pressure in accordance with the tire standards, the groove width of each of the tilting main groove A and the tilting main groove B is in the range of 1.5% to 7.5%, both inclusive, of the periphery length between the opposite

edges of the tread, and wherein the groove length of each of the tilting main groove A and the tilting main groove B is not less than 20% of the periphery length between the opposite edges of the tread.

10. The pneumatic tire for a two-wheeled motor vehicle according to Claim 8, wherein the allocation of the groove length and the groove area between the tilting main grooves A and B satisfies the relationship represented by the following expressions:

(a) the allocation of the groove length: $B:A = 10:10$ to 25;

(b) the allocation of the groove area: $B:A = 10:10$ to 25.

11. The pneumatic tire for a two-wheeled motor vehicle according to Claim 8, wherein, in a no-load standard state where the tire is assembled to a standard rim specified in the standards and filled with 80% of the highest internal pressure in accordance with the tire standards, the center of the groove width of the main groove component C is positioned in the region whose opposite edges are each apart from the tread center portion by substantially 10% of the periphery length between the opposite edges of the tread.

12. The pneumatic tire for a two-wheeled motor vehicle according to Claim 8, wherein, in a no-load standard state where the tire is assembled to a standard rim specified in the standards and filled with 80% of the highest internal

pressure in accordance with the tire standards, the total groove length of the main groove component C is not less than 15% of the periphery length of the tread center portion.

13. The pneumatic tire for a two-wheeled motor vehicle according to Claim 12, wherein, when the belt layer has at least one angled belt on the outer layer of the spiral belt, the total groove length of the main groove component C is not less than 50% of the periphery length of the tread center portion, in a no-load standard state where the tire is assembled to a standard rim specified in the standards and filled with 80% of the highest internal pressure in accordance with the tire standards.

14. The pneumatic tire for a two-wheeled motor vehicle according to Claim 8, wherein the main groove component C is formed by inflecting at least one of the tilting main groove A and the tilting main groove B so as to have an angle in the range of 0° or more to less than 20° with respect to the circumferential direction, in the tread center region.

15. The pneumatic tire for a two-wheeled motor vehicle according to Claim 8, wherein the main groove component C is a groove other than the tilting main groove A and the tilting main groove B, and wherein the main groove component C is at least one linear groove or zigzag groove in the circumferential direction, disposed in the tread center region.

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16. The pneumatic tire for a two-wheeled motor vehicle according to Claim 8, wherein, in a no-load standard state which the tire is assembled to a standard rim specified in the standards and filled with 80% of the highest internal pressure in accordance with the tire standard, the area ratio of all grooves in a pattern on the tread surface portion is in the range of 5% to 20%, both inclusive.

17. The pneumatic tire for a two-wheeled motor vehicle according to Claim 8, wherein the cords constituting the spiral belt and the cords constituting the angled belt each have an initial tensile resistance of not less than 50 cN/cord.